XXIX. EXTRACTS from the MINUTE-BOOK of the LINNEAN SOCIETY of LONDON.

Nov. 2, Dr. Maton, Vice-President, communicated a Letter 1819. from the Rev. Revett Sheppard, F.L.S., giving an account of the Coluber Chersea of Linnæus, Trans. Linn. Soc., vol. xii. p. 349, and the C. Prester, having been found in the parish of Levington and other places in the county of Suffolk, in arid waste situations, where, from the circumstance of the Strix brachyotos frequenting the same places during six months of the year, it is probable that those vipers feed on mice.

Mar. 7, The Rev. William Whitear, F.L.S. communicated the following Remarks by Mr. J. Youell of Yarmouth in Norfolk:—In the spring of 1818, Mr. Youell procured from the marshes at Winterton upwards of thirty eggs of the Shoveler Duck (Anas clypeata Linn.). These eggs were put under some domestic fowls, and most of them were hatched; but he succeeded in rearing only two of them. Their bills, when a few days old, were not longer than those of the domestic Duck, but at the age of three weeks they had obviously increased in length more than those of the common Duckling. One of these birds, a male, lived till it was ten months old, and then had attained in a considerable degree the adult plumage of the Shoveler.

Mr.

Mr. Youell observes that, although the usual food of the Scoter (Anas nigra, Linn.) consists of shell-fish and other marine productions, it will readily feed upon corn. A bird of this species was kept alive by him for several months, and fed upon barley.

In the summer of 1817 Mr. Youell had four young birds of the Teal (Anas Crecca, Linn.), which were hatched at Rudham in Norfolk.

From minute observations on the male birds of the Godwit (Limosa rufa, Temminck), killed at different periods, Mr. Youell is convinced that they do not change the colour of their plumage in spring by shooting their feathers, but that the change is effected by the cinereous feathers themselves becoming bay; for he has frequently observed upon the same individual cinereous feathers more or less blotched with bay colour.

Mr. Youell has also ascertained that the Pochard (Anas ferina, Linn.) breeds on Scoulton-mere in Norfolk, where several were seen in May last sitting on their nests, and with the young nearly excluded.

- May 2. Mr. William Ross, F.L.S. announced in a Letter to the Secretary, that on the 6th of December last he discovered a species of Cyclamen in flower, and growing in great abundance in a wood on Alderdown Farm, in the parish of Sandhurst in Kent, on a poor yellow sandy loam soil. The flowers were red, white, and purple. Mr. Ross considers this to be the Cyclamen europæum of Engl. Bot. (C. hederifolium, Smith Compend. Flor. Brit.) and what is known among gardeners by the name of C. autumnale.
- Nov. 21. Read a Letter from Mr. J. Youell of Yarmouth, in which

which he states, that a fine specimen of Ardea comata of Pallas, and of Gmel. Syst. Nat. i. p. 632. n. 41., was taken on the 20th of July last in a fisherman's net, whilst drying, at Ormsby in Norfolk, within fifty yards of the spot where the African Heron (Ardea capsica, Lath.), formerly in the possession of Montagu, and now in the British Museum, was taken about five years ago.

Dr. Leach communicated an extract of a Letter, addressed to him by Robert Scarth, Esq., containing some observations on the economy of the Procellaria pelagica, or Stormy Petrel. Mr. Scarth states, that in passing over a tract of peat-moss, near the shore, in a small uninhabited island in Orkney, one evening in the month of August last, he was surprised to hear a low purring noise, somewhat resembling the sound of a spinning-wheel in motion; and on inquiry, he was informed by one of the boatmen who accompanied him, that it was the noise commonly emitted by the Alimonty (the Orkney name for the Stormy Petrel), that frequented the island when hatching.

On examining a small hole in the ground, he found the bird and its nest, which was very simple, being little more than a few fragments of shells laid on the bare turf. It contained two round pure-white eggs, which were very large in comparison with the size of the bird. When he seized the bird, she squirted out of her mouth an oily substance of a very rancid smell. He took her home, and having put her into a cage, he offered her various kinds of worms to eat: but, as far as he could observe, she ate nothing till after the expiration of four days, when he observed that she occasionally drew the feathers

feathers of her breast singly across, or rather through her bill, and appeared to suck an oily substance from them. This induced him to smear her breast with common train-oil; and observing that she greedily sucked the feathers, he repeated the smearing two or three times in each day for about a week. He then placed a saucer containing oil in the cage, and he observed that she regularly extracted the oil by dipping her breast in the vessel, and then sucked the feathers as before. In this way he kept her for three months. After feeding she sat quietly at the bottom of the cage, sometimes making the same purring noise which first attracted his notice, and sometimes whistling very shrilly.

Feb. 6,

Dr. Sims, F.L.S. communicated some observations on the economy of the Toad (Rana Bufo) by William Fothergill, Esq. of which the following is an extract: -"The common food of the Toad is small worms, and insects of every description; but its favourite food consists of Apis mellifica, A. conica, A. terrestris, and Vespa vulgaris. When a Toad strikes any of these insects, however, deglutition does not immediately take place as in other cases, but the mandibles remain closely compressed for a few seconds, in which time the bee or wasp is killed, and all danger of being stung avoided. The mandibles are provided with two protuberances, which appear to be destined for this office. Although capable of sustaining long abstinence, the Toad is a voracious feeder when opportunity offers. To a middle-sized one the writer has given nine wasps, one immediately after another; the tenth it refused, but in the afternoon of the same day it took eight more.

To see the Toad display its full energy of character, it is necessary to discover it in its place of retirement for the day, and, if possible, unperceived to drop an insect within its sight: it immediately arouses from its apparent torpor, its beautiful eyes sparkle, it moves with alacrity to its prey, and assumes a degree of animation incompatible with its general sluggish appearance. When arrived at a proper distance, it makes a full stop, and, in the attitude of a pointer, motionless eyes its destined victim for a few seconds, when it darts out its tongue upon it, and lodges it in its throat with a velocity which the eye can scarcely follow. It sometimes happens to make an ineffectual stroke, and stuns the insect without gorging it, but never makes a second stroke until the insect resumes motion. It uniformly refuses to feed on dead insects, however recent. For several years a Toad took up its abode during the summer season under an inverted garden-pot, which had a part of its rim broken out, in the writer's garden, making its first appearance in the latter end of May, and retreating about the middle of September. This Toad, there is reason to believe, distinguished the persons of the family, who daily fed it, from strangers; as it would permit them to pat and stroke it. To try the indiscriminating appetite of these animals, the writer has dropped before a full-grown Toad a young one of its own species, about three-fourths of an inch long, and the instant it began to move off, it was eagerly struck at and swallowed; but the writer, in repeating this experiment, found that more will refuse than devour the young of their own species. When living minows (Cyprinus Phoxinus) were dropped before a Toad,

Toad, they were struck at and swallowed in the same manner. These experiments were made on Toads at full liberty and met with accidentally. Toads generally return to their winter quarters about the time that swallows disappear. The writer on such occasions has seen them burrowing in the ground backwards, by the alternate motion of their hind legs."

To this communication Dr. Sims adds, that a tame Kite, which he kept for some time, though frogs were its favourite food, would never eat a Toad; but whilst killing it, which he would always do when presented to him, showed signs of the greatest horror, screaming aloud at every peck he gave it, and retreating a little way, as if afraid of receiving some injury from it, but returning again to the attack till he had deprived it of life. Dr. Sims also states, that upon passing a shock from a small electrical battery through a Toad, the surface of its back was immediately covered with small drops of a substance as white as milk, which seemed to ooze from every pore.

- May 24. Living specimens of Linnæa borealis were presented by Miss Emma Trevelyan, by whom it was discovered for the first time in England on the 1st of September last, growing in a plantation consisting chiefly of Scotch fir, about seventy years old, at Catcherside, in the parish of Hartburn in Northumberland.
- Nov. 20. Read a Letter from W. R. Whatton, Esq. to the Secretary, dated Manchester, 7th November, stating that in the last summer, while a Hull whale-ship was beset in the ice in the North Seas, the crew took a female Narwhal (Monodon monoceros) with a tooth in the upper jaw, perfect, and in every respect like those of

the males, though not so large. The sex of this animal was satisfactorily ascertained in cutting up, when two fœtuses were taken out of it.

Read a Letter from James Clealand, Esq. of Rathgael House, near Bangor in the county of Down, Ireland, containing an account of a new species of Patella, which has been named by Mr. Sowerby Patella Clealandi. Mr. Clealand describes it as follows: Shell oval, white, with red-brown or purple spots; faintly striated longitudinally, and still more faintly transversely; summit obtuse, lateral, tinged with light purple; margin entire; inside white, with a dark-brown muscular impression. The young shells are very thin, but the old are nearly opake. The size of the largest specimen yet found is $9\frac{1}{2}$ -tenths of an inch in length, 7-tenths in breadth, and 4-tenths in height. There is a dark-brown variety, with two indistinct rays from the apex, one on each side.

This shell was first found by Mr. Clealand in June 1819, at low-water mark, on a smooth stone forming a part of the breakwater at Port George, near Bangor. And it has since been found in great numbers at the same place during very low ebbs.

Dec. 18. Dr. Maton, V. P. presented a Panicle of Holcus Sorghum, raised in the garden of the Bishop of Durham, H.M.L.S. at Mongewell, from seeds collected on the Himáláya mountains in Hindostan. Seeds from this Panicle were stated by Dr. Maton to have grown freely in Mr. Walcott's garden at Oundle this year.

Read the following Extract from a Letter from Mr. Patrick Hill, Surgeon in the Royal Navy, dated Sydney,

New South Wales, 3d January 1821, addressed to the Secretary:

"You will be gratified to learn, that I have been completely successful in establishing our friend Sir John Jamison's account of the spur of the Ornithorhynchus paradoxus. I subjoin an extract from my notes: 'Sunday, Oct. 1, 1820.—On the banks of Campbell's River. In the morning shot a male Ornithorhynchus. On examination, soon after it was killed, I observed near the extremity of the convex side of the spur, a minute spot, like the orifice of a tube; and on endeavouring to pass a bristle from this spot, three successive drops of a limpid clear fluid issued from it. I then examined the other spur with the same result. On dissecting the foot of the animal, I found at the inner side of the root of the spur, immediately over the articulation, a small cyst, which I cut into; it did not at that time contain any fluid; but from it I, with great ease, passed a horse-hair through the spur. This preparation I have sent to you, together with the dried cyst.'

"You will also be pleased to learn, that I have been fortunate enough to get an impregnated female of this interesting animal. I give you another extract from my notes: 'Bathurst, Oct. 13.—After breakfast went with Mr. Scott to examine a hole, where we had been told that a wounded Ornithorhynchus had taken refuge, and which we hoped might prove to be the animal's nest; but on digging we found it to be that of a Rat. On returning, however, we were gratified in finding that a female Ornithorhynchus had been brought in alive, having been

been found on its nest in a lagoon near Campbell's River, by Mr. Rawley, who says that he was obliged to tear the nest to pieces before he could get the animal out, the nest being formed of reeds and rushes, with a long tube or entrance into it, out of which the bill of the animal only was visible. The animal was placed in a bucket of water, in which it seemed to enjoy itself for some time, occasionally getting on its back in the water to scratch its head with the hind foot. The eyes are small and prominent, of a muddy-brown colour, with blue pupil, and are situated immediately behind the skinny flap at the base of the bill. After a short time it did not seem to like being in the water, and therefore it was taken out; a string was tied round the leg, and it was allowed to go on the grass, where it crawled along, seemingly with difficulty. It appeared to like having its head scratched, as it allowed me to do so without moving. 'Oct. 14.-Found the Ornithorhynchus nearly dead, and proceeded to examine its structure. The rectum, vagina, and urinary bladder have one common orifice. On opening the abdomen I was much gratified to find in the left ovarium a round yellow ovum, about the size of a small pea. There were also two of smaller size, and an immense number of minute vesicles, hardly perceptible to the eye, but distinctly visible under the microscope. There was no uterus, nor any viscus similar to it, but only a tube leading up from the cloaca, which divided into two ducts leading to the ovaries, similar in situation to the Fallopian tubes of viviparous animals, but much larger and wider. There was not any appearance of impregnation in the right ovarium.' I cut out the whole 4 L 2

whole of the internal parts of generation, the urinary bladder, part of the rectum, and also the whole of the cloaca unexamined, and put them into spirits. This preparation is now in the possession of Mr. Scott, who is to take it with him to England, and who will, I am sure, feel much pleasure in showing it to you*. In this preparation the urinary bladder must not be mistaken for an uterus.

"Cookoogong a native, chief of the Boorah-Boorah tribe, says, that it is a fact well known to them, that, this animal lays two eggs, about the size, shape, and colour of those of a hen; that the female sits a considerable time on her eggs in a nest which is always found among the reeds on the surface of the water; that the animal can run on the grass, and is sometimes found at a considerable distance from the water; that he is also perfectly aware that a wound from the spur of the male is followed by swelling and great pain; but although he has seen many cases of it, he has never known it fatal; that the flesh of the animal is never eaten, and that the native name is Mullingong.'

April 16, The Secretary exhibited two living individuals of the 1822. Lemur albifrons of Geoffroy St. Hilaire, from Madagascar, male and female.—It appears that M. Geoffroy had seen only the male of this species; and M. Desmarest, in Deterville's Dictionnaire d'Histoire Naturelle, considers the Lemur anjuanensis of Geoffroy, which has no white about the face, as the female of Lemur albi-

^{*} Mr. Scott, on his arrival in England, presented the preparation to the University of Oxford.

frons; whereas, both sexes of the animals now exhibited are marked alike in this respect.

May 24. A marble Bust of the late Right Honourable Sir Joseph Banks, Bart., G.C.B. Hon. Mem. Linn. Soc., which has been executed by Mr. Chantry, was placed in the Meeting Room. It was paid for by subscription of the following Members of the Society, viz.

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